Application No. 10/518,322 Amendment dated December 17, 2008 Reply to Office Action dated June 27, 2008

<u>Amendments to the Claims:</u> This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

(withdrawn) The method according to claim 178, wherein configuring comprises configuring
the electrical current so as to cause an increase in clearance of an AD-related constituent of a
central nervous system (CNS) of the subject, from a brain of the subject to a systemic blood
circulation of the subject, so as to treat the AD.

2-5. (canceled)

6. (withdrawn) The method according to claim 1, wherein the AD-related constituent includes an inflammatory-related constituent, and wherein configuring the stimulation comprises configuring the stimulation so as to cause the increase in the clearance of the inflammatoryrelated constituent.

7-9. (canceled)

- 10. (withdrawn) The method according to claim 1, wherein the AD-related constituent includes a DNA fragment, and wherein configuring the stimulation comprises configuring the stimulation so as to cause the Increase in the clearance of the DNA fragment.
- 11. (withdrawn) The method according to claim 1, wherein the AD-related constituent includes an RNA fragment, and wherein configuring the stimulation comprises configuring the stimulation so as to cause the increase in the clearance of the RNA fragment.
- 12. (withdrawn) The method according to claim 1, wherein the AD-related constituent includes a cytokine, and wherein configuring the stimulation comprises configuring the stimulation so as to cause the increase in the clearance of the cytokine.
- 13. (withdrawn) The method according to claim 1, wherein the AD-related constituent includes a marker of neuronal death or degeneration, and wherein configuring the stimulation comprises configuring the stimulation so as to cause the increase in the clearance of the marker.
- 14. (withdrawn) The method according to claim 1, wherein the AD-related constituent includes a marker of an inflammatory process, and wherein configuring the stimulation comprises configuring the stimulation so as to cause the increase in the clearance of the marker.

15-18. (canceled)

19. (withdrawn) The method according to claim 178, and comprising supplying a pharmaceutical agent to a systemic blood circulation of the subject, wherein configuring comprises configuring the electrical signal so as to cause an increase in passage of the pharmaceutical agent from the systemic blood circulation into a central nervous system (CNS) of the subject, so as to treat the AD.

20-22, (canceled)

- 23. (withdrawn) The method according to claim 19, wherein the pharmaceutical agent includes a glutamate receptor antagonist, and wherein configuring the stimulation comprises configuring the stimulation so as to cause the increase in the passage of the glutamate receptor antagonist.
- 24. (withdrawn) The method according to claim 19, wherein the pharmaceutical agent includes an NMDA receptor blocker, and wherein configuring the stimulation so as to cause the increase in the passage of the NMDA receptor blocker.

25-26, (canceled)

27. (withdrawn) The method according to claim 19, wherein the pharmaceutical agent includes a stimulant of nerve regeneration, and wherein configuring the stimulation comprises configuring the stimulation so as to cause the increase in the passage of the stimulant.

28-29. (canceled)

- 30. (withdrawn) The method according to claim 19, wherein the pharmaceutical agent includes a microglial activation modulator, and wherein configuring the stimulation comprises configuring the stimulation so as to cause the increase in the passage of the microglial activation modulator.
- 31. (withdrawn) The method according to claim 19, wherein the pharmaceutical agent includes an antioxidant, and wherein configuring the stimulation comprises configuring the stimulation so as to cause the increase in the passage of the antioxidant.

32. (canceled)

33. (withdrawn) The method according to claim 19, wherein the pharmaceutical agent includes an inhibitor of protein tyrosine phosphatases, and wherein configuring the stimulation comprises configuring the stimulation so as to cause the increase in the passage of the inhibitor.

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34. (withdrawn) The method according to claim 19, wherein the pharmaceutical agent includes a medium chain triglyceride, and wherein configuring the stimulation comprises configuring the stimulation so as to cause the increase in the passage of the medium chain triglyceride.

35-39. (canceled)

40. (withdrawn) The method according to claim 19, wherein the pharmaceutical agent is selected from the list consisting of: an AD vaccine, a component of an AD vaccine, and a derivative of an AD vaccine, and wherein configuring the stimulation comprises configuring the stimulation so as to cause the increase in the passage of the selected pharmaceutical agent.

41-46. (canceled)

47. (previously presented) The method according to claim 178, wherein configuring comprises configuring the electrical signal so as to cause an increase in cerebral blood flow (CBF) of the subject, so as to treat the AD.

48. (currently amended) The method according to claim 186 [[47]], wherein applying the electrical signal to the SPG-related tissue comprises directly applying the electrical signal to the SPG.

49-177. (canceled)

178. (currently amended) A method comprising:

directly applying an electrical signal to a sphenopalatine ganglion (SPG) (SPG) related tissue of a subject suffering from Alzheimer's disease (AD), the SPG-related tissue-selected from the group-consisting of: an SPG of the subject and nerve fibers of the subject which are directly anatomically connected to the SPG; and

treating the AD by configuring the electrical signal to stimulate the $\underline{\sf SPG}$ SPG-related tissue.

179. (currently amended) The method according to claim 178, wherein configuring the electrical signal comprises configuring the electrical signal to induce parasympathetic activation of the SPG SPG-related tissue.

180-181. (canceled)

182. (currently amended) The method according to claim 178, wherein applying the electrical signal comprises applying long-term stimulation to the <u>SPG SPG-related-tissue</u>.

- 183. (currently amended) The method according to claim 182, wherein applying the long-term stimulation comprises applying long-term intermittent stimulation to the <u>SPG SPG-related Hissue</u>.
- 184. (currently amended) The method according to claim 178, wherein <u>directly</u> applying the electrical signal comprises implanting an electrical stimulator in a nasal cavity of the subject, and applying the electrical signal using the stimulator.
- 185. (new) The method according to claim 178, wherein directly applying the electrical signal comprises directly attaching an electrical stimulator to the SPG, and applying the electrical signal using the stimulator.

186. (new) A method comprising:

applying an electrical signal to sphenopalatine ganglion (SPG)-related tissue of a subject suffering from Alzheimer's disease (AD), the SPG-related tissue selected from the group consisting of: an SPG of the subject and nerve fibers of the subject which are directly anatomically connected to the SPG; and

treating the AD by configuring the electrical signal to cause an increase in cerebral blood flow (CBF) of the subject.

- 187. (new) The method according to claim 186, wherein configuring the electrical signal comprises configuring the electrical signal to induce parasympathetic activation of the SPG-related tissue.
- 188. (new) The method according to claim 48, wherein directly applying the electrical signal comprises directly attaching an electrical stimulator to the SPG, and applying the electrical signal using the stimulator.